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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/743,303      | 12/23/2003  | Cheul Kyung Han      | LT-0034             | 7853             |

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| EXAMINER |
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HALEY, JOSEPH R

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| ART UNIT | PAPER NUMBER |
|----------|--------------|

2627

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE  | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS                               | 01/04/2007 | PAPER         |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/743,303

Applicant(s)

HAN, CHEUL KYUNG

Examiner

Joseph Haley

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Drawings***

Figures 1-4 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 6 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification does not describe the sub pulse having the same width regardless of the size of the pit.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 4, 5, 7-8, 10-12, 14, 15 and 17-27 are rejected under 35

U.S.C. 102(e) as being anticipated by Sasaki et al. (US 6614739).

In regard to claim 1, Sasaki et al. teaches an optical pick-up means for recording data; driver means for generating a driving signal for driving the optical pick-up means to adjust an optical power level of the optical pick-up means (fig. 2 elements 35-37); and control means for generating a main pulse for the driving signal and a sub pulse having a prescribed width (fig. 2 elements 32-34), wherein the sub pulse being generated at a prescribed time prior to generating the main pulse (see fig. 7).

In regard to claim 2, Sasaki et al. teaches wherein the sub pulse is overlapped with the main pulse for approximately the prescribed time (see fig. 7. The EQEFM pulse starts approximately in the middle of the ODP\_FIRST pulse).

In regard to claims 4, 10, Sasaki et al. teaches wherein the driver means is driven by signals indicative of a magnitude and ON/OFF timings of the main pulse and signals indicative of a magnitude and ON/OFF timings of the sub pulse (see fig. 2).

In regard to claim 5, Sasaki et al. teaches storage means for storing variables indicative of respective start and end times and respective magnitudes of the main pulse and the sub pulse according to sizes of respective recording pits, wherein the control means generates the main pulse and the sub pulse using a subset of the variables corresponding to each size of the recording pits (column 7 lines 66-67 and column 8 lines 1-7).

In regard to claim 7, Sasaki et al. teaches storage means for storing variables indicative of respective start and end times and respective magnitudes of the main pulse and the sub pulse according to individual disk manufacturers, wherein the control means generates the main pulse and the sub pulse using corresponding variables of the variables for each disk manufacturer (column 11 lines 5-14).

In regard to claims 8, 11, and 21 see claim 1 rejection above.

In regard to claim 12, Sasaki et al. teaches wherein the sub-pulse is generated a predetermined time before the main pulse, and wherein said predetermined time is based on a duty ratio of the sub-pulse (fig. 7 see also column 10 lines 1-4).

In regard to claim 14, Sasaki et al. teaches detecting the duty ratio based on timing data stored on the optical storage medium (column 11 lines 5-10).

In regard to claims 15, 17, 18, 20 and 22-27, see claims 12 and 14 rejections above.

In regard to claim 19, wherein said information includes a start time of a lead-out area, a start time of a lead-in area or disc id from a table of contents stored on the

medium (column 11 lines 5-14. The manufacturer must be read from a table of contents).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki et al. in view of Yokoi et al. (US 5732062).

In regard to claims 3, 6 and 9, Sasaki et al. teaches all the elements of these claims except wherein the sub-pulse has the same signal level as that of the main pulse and the sub pulse having the same width regardless of the size of the pit.

Yokoi et al. teaches wherein the sub-pulse has the same signal level as that of the main pulse and the sub pulse having the same width regardless of the size of the pit (fig. 4).

The two are analogous art because they both deal with the same field of invention of recoding on optical discs.

At the time of invention it would have been obvious to one of ordinary skill in the art to provide the apparatus of Sasaki et al. with the pulse level and width of Yokoi et al. The rationale is as follows: At the time of invention it would have been obvious to provide the apparatus of Sasaki et al. with the pulse level and width of Yokoi et al.

because it would eliminate variables from the recording operation making the operation faster.

Claims 13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki et al.

In regard to claims 13 and 16, Sasaki et al. teaches all the elements of these claims except a duty ratio of 50% and wherein said width is equal to  $T/32$  (Sasaki et al. teaches changing the pulse width according to the EFM signal see column 8 lines 1-7).

At the time of invention it would have been obvious to one of ordinary skill in the art to provide the apparatus of Sasaki et al. with a duty ratio of 50% and a width equal to  $T/32$ . The rationale is as follows: At the time of invention it would have been obvious to provide the apparatus of Sasaki et al. with a duty ratio of 50% and a width equal to  $T/32$  because these results are optimization of a result effective variable.

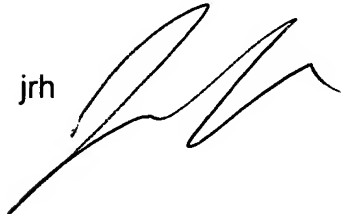
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Haley whose telephone number is 571-272-0574. The examiner can normally be reached on M-F 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on 571-272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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